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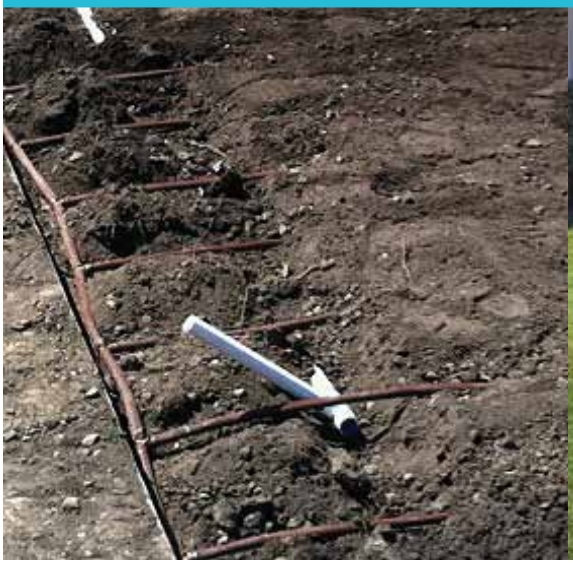

DELTA BLUEGRASS DEMO GARDENS COMBINE WATER EFFICIENT TURF BLENDS WITH SDI IRRIGATION

NETAFIM TECHLINE CV® HELPS MAXIMIZE WATER EFFICIENCY

PROJECT OVERVIEW

Leading West Coast sod distributor Delta Bluegrass combined their water saving turfgrasses with Netafim's subsurface drip irrigation products to create the ultimate system in water conservation for their new demonstration area at Delta Bluegrass headquarters in Northern California.

According to Delta Bluegrass' Marketing Manager, Vita Perez, escalating interest in water conservation inspired the conception of five different California Native turfgrass blends within the last seven years.

"Professional interest in low maintenance, water saving turfgrass has been soaring," said Perez. The new blends are 50% to 70% more water efficient than traditional varieties. Perez adds that Netafim's drip irrigation systems maximize the grasses water efficiency while maintaining their beautiful aesthetics despite California's scorching hot summers.

Designed primarily for landscape architects and contractors, the newest demonstration area is a 2,000 sq. ft. site located in front of the Delta Bluegrass corporate offices and includes Netafim Techline CV dripline, a pre-assembled Netafim Low Volume Control Zone Kit, and five Delta Bluegrass turf blends.

STRATEGY & CHALLENGES

The Delta Bluegrass team worked with Netafim's District Sales Manager, Bob Best, to devise a below-grade dripline irrigation plan. The goal was to demonstrate that the water-conserving varieties could indeed thrive with less water in challenging conditions, such as Stockton's hot and dry, 100°+ temperatures.

DELTA BLUEGRASS PROJECT STATS

LOCATION

Stockton, California

LANDSCAPE ARCHITECT

Jodie Sheffield, Seed Specialist and Research & Development
Delta Bluegrass Company

DEMONSTRATION DESIGNER

Bob Best, Northern California District Sales Manager
Netafim USA

ISSUES TO ADDRESS

- Excessively hot and dry summers
- Water loss to runoff and evaporation
- Loamy peat soil with high infiltration rate
- Dry edges caused by hot zones near hardscapes
- Increasingly costly water rates

NETAFIM PRODUCTS USED

- Techline CV Dripline
- Low Volume Control Zone Kit
- Manual Flush Valve
- Insert couplings, elbows, tees and crosses

RESULTS

- 50% - 70% reduction in water consumption
- Major reduction in system maintenance and labor

Best recommended Netafim Techline® CV dripline and designed a system with 2,000 feet of dripline that incorporated 12" emitter spacings. Because the site had very loamy peat soil with a high infiltration rate, Best specified a low flow rate of 0.4 GPH (gallons per hour). Matching the flow rate to the soil type is one of the advantages of drip irrigation. The 0.4 GPH flow rate allows the water to percolate down to the root zones without puddling or run-off.

Marked ground where the lateral lines of the Netafim Techline CV Dripline will be installed 12" apart.

The dripline was installed 4" below grade and the rows of tubing were place 12" apart. The new sod, about 1 1/2" thick, was set on top. Best recommended that the tubing start within 2" of the hardscape.

"Heat from the hardscape can create a hot zone so it's best to place dripline 2" away from walkways or patios so the turf or plantings get more direct access to the water. This also eliminates dry edges," said Best.

Gina Ratto and Ken Jochimsen of Delta Bluegrass inspect the turf in the demonstration area. Background blend: Native Bentgrass. Foreground blend: Bolero Plus variety.

A pre-assembled Netafim Low Volume Control Zone Kit (1" valve, 140 mesh filter and a 43 psi pressure regulator) was installed. The kit fit into a standard 12" rectangular valve box.

A controller allows programming for a low flow schedule. The scheduling was designed to accomodate Stockton's historic summer ET (evapotranspiration) rates. The irrigation is set to run approximately 24 minutes daily on a two-cycle and soak schedule. The water runs for 12 minutes in the morning and 12 minutes in the afternoon.

"This also promotes capillary action. For example, frequent on-off cycling of a zone helps move water as far outward, upward and downward from the dripline as possible, which helps stimulate root growth," said Best.

"We recommend a lull of three to four hours between irrigation cycles so the water can be fully absorbed."

Netafim Techline CV Dripline is installed 4" below the soil and secured with 6" soil staples every 4' along the dripline.

RESULTS

With the selection of a low flow rate of 0.4 GPH, the turf's water needs were accommodated without losing irrigation water to deep percolation, a tendency with very loamy peat soil. The 12" emitter spacings provide uniform wetting patterns as this soil type drains very rapidly and lacks the ability to spread. To prevent striping in the grass, 12" emitter spacings work well with this type of soil, eliminating the need for over irrigation.

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